

# ILYAS IBRAGIMOV

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## SUMMARY

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Senior software engineer with 6+ years building platform infrastructure and trading systems at quantitative hedge funds. At Two Sigma, backend engineer on firm-wide cost and metrics systems in Python, dbt, BigQuery, and SQL, with multiple LLM-powered tools in production. Previously built Python portfolio analytics, optimized C++ trading systems, and integrated exchange connections.

## EXPERIENCE

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### Senior Software Developer

Nov. 2022 – Present

#### Two Sigma (via Randstad Digital)

New York, NY

- Built and maintained the ELT pipeline for a firm-wide cost transparency platform over 3 years with Python, dbt, and BigQuery: 8+ disparate data sources, 15+ TB of usage data daily across hundreds of products, \$80MM+ in annual spend. Became sole backend engineer after the lead's departure.
- Built a firm-wide metrics platform in Python, BigQuery, and SQL, ingesting hundreds of KPIs from multiple teams and sources for executive dashboards and team-level tracking.
- Onboarded a new engineer to the team and together decomposed an inherited legacy monolith into 5 loosely coupled pipelines with dedicated CI/CD, automated testing, and programmatic data ingestion.
- Drove early adoption of dbt (Data Build Tool) at the firm. Co-authored the internal best practices guide, built quickstart repos, and gave presentations that accelerated usage across multiple teams. Led the migration from Apptio to Python, dbt, and BigQuery, delivering \$1MM+ in annual savings and 65% faster processing.
- Created an LLM-powered department reorganization detection system: a pipeline using Claude and Vertex AI that analyzes employee movement patterns, classifies organizational changes, and applies retroactive cost corrections. Eliminated weeks of manual investigation per reorganization.
- Designed an automated incident response system with GitHub issue creation, Slack alerting, and AI-generated root-cause analysis via Claude Code. Hardened ELT pipelines with schema drift auto-recovery, exponential backoff retries, and safe handling of upstream outages.
- Built a PowerPoint generation framework for Claude Code: fully editable, branded decks with employee photo lookups, auto-generated figures and tables, and Google Workspace uploads. Includes custom skills, prompts, assets, JavaScript rendering scripts, and Playwright layout tests.

### Software Developer

Jan. 2020 – Nov. 2022

#### Blueshift Asset Management

Red Bank, NJ

- Built a real-time portfolio monitoring platform with terminal-based GUI, automated investor reporting, and historical performance tracking. Reduced analysis time by 65% and supported \$500M+ in managed assets.
- Optimized the fund's proprietary C++ trading platform, reducing storage by tens of terabytes and production server load by 40%.
- Integrated with multiple equity and crypto exchanges and built Python/Selenium data scrapers feeding alternative data research: social media signals, transcribed investor calls, and market sentiment analysis.
- Designed a real-time compliance monitoring system automatically flagging banned tickers and improper trade amounts before execution, preventing regulatory violations.

### Platform Development Intern

July 2018 – Sep. 2018

#### Fidessa

Woking, UK

- Built a secure file transmission platform in Java and JavaScript that eliminated recurring data breaches affecting 200+ clients, replacing vulnerable manual processes.

## TECHNICAL SKILLS

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**Languages:** Python, SQL (BigQuery), C++, Bash, JavaScript

**Data & Analytics:** dbt, BigQuery, PostgreSQL, Dimensional Modeling, ELT Pipeline Design

**Cloud & Infrastructure:** GCP (BigQuery, GCS), AWS, Docker, GitHub Actions, Linux/Unix

**AI/LLM:** Claude Code, Claude API, Claude Skills, MCP Servers, Agentic Workflows, Test-Driven LLM Development

**Tools & Platforms:** Git, GitHub, Datadog, Jira, Slack, Google Workspace, Excel, REST APIs

**Frameworks & Testing:** Flask, Django, Playwright, Selenium

EDUCATION

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|---|--------------|
| <b>University College London (UCL)</b>  | London, UK   |
| <i>Master of Engineering (Electronic &amp; Electrical), First Class Honors (4.0 GPA Equivalent)</i> | 2019         |
| <b>Baruch College MFE Program</b>   | New York, NY |
| <i>C++ Programming for Financial Engineering Certificate, Distinction</i>                           | 2020         |
| <b>Brooklyn Technical High School</b>   | Brooklyn, NY |
| <i>High School Diploma, Mathematics Major, Math Team, 4.0 GPA</i>                                   | 2015         |

PROJECTS

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| <b>Network Packet Routing with Deep Reinforcement Learning</b>   | MEng Thesis, First Class Honors |
| <i>University College London (UCL)</i>   | 2019                            |
| <ul style="list-style-type: none"><li>Developed deep reinforcement learning models for optimal packet routing in software-defined networks using Python, OpenAI Gym, and TensorFlow.</li></ul> |                                 |
| <b>Deep Learning Applications in Cryptocurrency Trading</b>  | BEng Thesis, First Class Honors |
| <i>University College London (UCL)</i>   | 2018                            |
| <ul style="list-style-type: none"><li>Built and refined LSTM networks for cryptocurrency return prediction using Python/Keras with extensive feature engineering and data mining.</li></ul>    |                                 |